

- a¹
- b) determining the level of expression in the sample of cells of one or more FSH or FSH Mimetic stimulated genes selected from the group consisting of those set forth in SEQ ID NOS. 1-15 and human genes homologous to said genes, in the presence and absence of a selected agent; and
 - c) identifying that the agent modulates an FSH or FSH Mimetic influenced cellular process or response when the expression of the one or more FSH or FSH Mimetic stimulated genes in the cell sample in the presence of the agent differs by at least a two-fold increase over the expression of the one or more FSH or FSH Mimetic stimulated genes in the absence of the agent.
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3. A method for identifying an agent which modulates an FSH or FSH Mimetic influenced cellular process or response, the method comprising:

- a²
- a) providing a sample of cells;
 - b) determining the level of expression in the sample of cells of one or more FSH or FSH Mimetic stimulated genes selected from the group consisting of those set forth in SEQ ID NOS. 1-15 and human genes homologous to said genes, in the presence and absence of a selected agent; and
 - c) identifying that the agent modulates an FSH or FSH Mimetic influenced cellular process or response when the expression of the one or more FSH or FSH Mimetic stimulated genes in the cell sample in the presence of the agent differs by at least a two-fold increase over the expression of the one or more FSH or FSH Mimetic stimulated genes in the absence of the agent.
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5. A method for detecting or monitoring a cellular process or response that is influenced by FSH or FSH Mimetic, the method comprising:

- a³
- a) obtaining a sample of cells from a patient;
 - b) determining the level of expression in the sample of cells of one or more FSH or FSH Mimetic stimulated genes selected from the group consisting of those set forth in SEQ ID NOS. 1-15 and human genes homologous to said genes; and
 - c) identifying that the cells in the sample of cells obtained from the patient are undergoing

a³ a cellular process or response that is influenced by FSH or FSH Mimetic when the level of expression of the one or more FSH or FSH Mimetic stimulated genes in the cell sample exhibits at least a two-fold increase relative to the level of expression of the one or more FSH or FSH Mimetic stimulated genes in a control the sample.

7. A method for assessing whether cells will be responsive to an agent which modulates an FSH or FSH Mimetic influenced cellular process or response comprising the steps of

- a⁴
- a) exposing a sample of cells obtained from a patient to a test agent;
 - b) determining the level of expression in the sample of cells of the one or more FSH or FSH Mimetic stimulated genes selected from the group consisting of those set forth in SEQ ID NOS. 1-15 and human genes homologous to said genes, in the sample exposed to the agent and in a sample of cells that is not exposed to the agent; and
 - c) determining that the cells will be responsive to the agent when expression of the one or more of the FSH or FSH Mimetic stimulated genes exhibits at least a two-fold increase in the presence of the agent relative to the expression of the one or more FSH or FSH Mimetic stimulated genes in the absence of the agent.
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Kindly add new claims 12-15.

12. The method of claim 1, wherein determining the level of expression in the sample of cells of one or more FSH or FSH Mimetic stimulated genes, comprises using a solid surface on which a group of probes is immobilized, the probes consisting of one or more of the sequences set forth in SEQ ID NOS. 1-15.

a⁵ 13. The method of claim 3, wherein determining the level of expression in the sample of cells of one or more FSH or FSH Mimetic stimulated genes, comprises using a solid surface on which a group of probes is immobilized, the probes consisting of one or more of the sequences set forth in SEQ ID NOS. 1-15.

14. The method of claim 5, wherein determining the level of expression in the sample of